

Manuscript changes following reviewers' comments

Lines 48 to 50: number of RSF updated and reference added (Referee 1).

Line 63: 'few' changed to 'one' (Referee 1).

Line 66: 'lower' deleted in accord with Referee 1.

Line 100: caption changed in accord with suggestion to label the ice flow phases (Ice flow phases also labelled on Fig. 2) in accord with Referee 1.

Line 166: 'sandstones' added in accord with the suggestion of Referee 1.

Fig. 4: the word 'debris' has been made more clear in accord with Referee 1.

Fig. 4B: the notation related to the cosmo samples has been added.

Line 299: text has been added to emphasize that the RSF sampling site was likely ice-smoothed. A supplementary figure (Fig. S3) has also been added to show this clearly, in accord with Referee 1.

Line 522-523: text has been added to make it clear that factors of safety higher than stated cannot pertain to this analysis. This is in accord with Referee 2 who queried the uncertainty of reported F values.

Line 526: text added to indicate that meltwater effects the water pressure in accord with query from Referee 2.

Caption to Fig. 7 has been edited to make it clear that the inner edge of the pentahedral is irregular to depict potential irregularity in the ice loading at the suggestion of Reviewer 1.

Lines 609 and 614: Minor changes to the text have been made due to query from Referee 2 about timing of active erosion in the cirque.

Line 631: text added to make it clear that the cosmogenic sampling location is on the failure plane of the RSF. In response to queries from both Referee 1 and 2.

Line 653: the word 'rock' has been added to define the obstacle to downward motion of the RSF, as a result of a query from Referee 1 with regard to the nature of any obstacle.

Lines 703 and 705 to 707: Text changed to emphasize which cosmo sample we are reporting and the fact that the failure plane is fractured whereas the outer face is not. In response to both queries from Referee 1 and 2.

Line 1146: Reference added at the suggestion of Referee 1.

